

Claims

1. An antisense nucleic acid molecule comprising a first region and a second region, both of which are complementary to a target nucleic acid molecule, and wherein the first region is available for hybridisation and the second region is temporarily masked.
2. The antisense molecule according to claim 1, wherein the second region is temporarily masked through being comprised in a hairpin loop structure.
3. The antisense molecule according to claim 1 or claim 2, wherein the first region is complementary to a specific sequence of the target nucleic acid molecule.
4. The antisense molecule according to claim 1, wherein the first region is between three and 18 bases in length.
5. The antisense molecule according to claim 1, wherein the first region exists in a single-stranded form.
6. The antisense molecule according to claim 1, wherein the second region is complementary to a sequence of the target nucleic acid contiguous with the specific sequence complementary to the first region.
7. The antisense molecule according to claim 1, wherein the unmasking of the second region becomes energetically favourable only in the presence of the target nucleic acid molecule and after interaction therewith via the first region.
8. The antisense molecule according to claim 2, wherein the hairpin loop comprising the second region contains one or more destabilising elements.
9. The antisense molecule according to claim 1, wherein the second region is no longer than 100 bases in length.

LA 31/02/2000

10. The antisense molecule according to claim 1, which is RNA or DNA.
11. The antisense molecule according to claim 1, wherein the target nucleic acid is
5 RNA or DNA.
12. A method for hybridising an antisense nucleic acid molecule to a target nucleic acid, comprising the steps of:
- (a) preparing an antisense nucleic acid molecule according to claim 1;
- 10 (b) hybridising the antisense molecule of step (a) to the target nucleic acid such that the first region of the antisense molecule binds to its complementary sequence in the target nucleic acid, such that the second region of the antisense molecule hybridises to its complementary sequence in the target nucleic acid.
- 15 13. A method for modulating the expression of a gene product encoded by a target nucleic acid, comprising the steps of:
- (a) preparing an antisense nucleic acid molecule according to claim 1;
- (b) hybridising the antisense molecule of step (a) to the target nucleic acid
20 comprising a gene encoding said gene product such that the first region of the antisense molecule binds to its complementary sequence in the target nucleic acid, such that the second region of the antisense molecule hybridises to its complementary sequence in the target nucleic acid. Wherein said hybridising of said antisense molecule to said target nucleic acid permits modulation of expression of gene.
- 25 14. The method according to claim 12 or claim 13, wherein the second region of the antisense nucleic acid molecule is temporarily masked in a hairpin loop structure.